

PTO/SB/08A (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	10/623,382
Filing Date	July 18, 2003
First Named Inventor	CARSON, James
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	8E07.1-050

Sheet 1 of 4

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
DT	AA	US- 5,280,292	01-18-1994	Matra Marconi Space	
DT	AB	US- 4,633,259	12-30-1986	Westinghouse Elect.	
DT	AC	US- 4,503,434	03-05-1985	Ford Aerospace	
DT	AD	US- 6,081,233	06-27-2000	Telefonaktiebolaget	
DT	AE	US- 6,252,560 B1	06-26-2001	Denso Corporation	
DT	AF	US- 4,638,317	01-20-1987	Westinghouse Elect.	
DT	AG	US- 5,691,728	11-25-1997	TRW Inc.	
DT	AH	US- 5,777,579	07-07-1998	TRW Inc.	
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DT	AK	US- 4,231,040	10-28-1980	Motorola, Inc.	
DT	AL	US- 4,810,982	03-07-1989	Hughes Aircraft Comp	
DT	AM	US- 5,455,742	10-03-1995	Eaton Corporation	
DT	AN	US- 6,563,395 B2	05-13-2003	Matsushita Electric	
DT	AO	US- 6,295,035 B1	09-25-2001	Raytheon Company	
DT	AP	US- 6,480,524 B1	11-12-2002	Nortel Networks Lim	
DT	AQ	US- 2002/0080066 A1	06-27-2002	Dent	
DT	AR	US- 2002/0190891 A1	12-19-2002	Viana et al.	
DT	AS	US- 2003/0011519 A1	01-16-2003	Breglia et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

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Sheet 2

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## U. S. PATENT DOCUMENTS

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		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)				
DT	BA	09-093008	04-04-1997	Nippon Telegr &		✓
DT	BB	09-172317	06-30-1997	Lucent Technol		✓
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DT	BD	08-250922	09-27-1996	Nippon Telegr &		✓
DT	BE	08-250923	09-27-1996	Nippon Telegr &		✓

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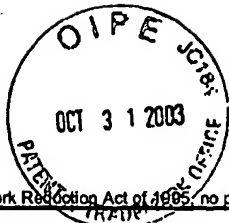
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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
DT	CA	ACCATINO, 12319 - MultiKaRa Deliverable D4 (update) Butler Matrices: Design & Breadboard, Information Society Technologies, 03-22-2001	
DT	CB	CAILLOCE, 12319 - MULTIKARA Deliverable D6 Demonstrator specifications, Information Society Technologies, 06-08-2001	
DT	CC	HAYASHI, Four-Element Planar Butler Matrix Using Half-Wavelength Open Stubs, IEEE M&WCL, March 2002, Vol. 12, No. 3, pgs 73-75	
DT	CD	BONA, Low-Loss Compact Butler Matrix for a Microstrip Antenna, IEEE Transactions on MT&Tech, Sept. 2002, Vol 50, No. 9, pgs 2069-2075	
DT	CE	DENIDNI, Microstrip 8X8 Butler Matrix for the Beamforming Network At 1.9 GHz Band, ISBN 84778.53495 ISRAMT'99, pgs 747-750	
	CF	<del>ACCATINO, Cad of Waveguide Butler Matrices Including Mechanical and Thermal Constraints, Abstract, 4 pages</del>	
DT	CG	SHELTON, Reflective Butler Matrices, IEEE Transactions on Antennas and Propagation, Sept. 1979, Vol. AP-27, No. 5, pgs 651-659	
DT	CH	ANG, A Wide-Band Monopulse Comparator With Complete Nulling in All Delta Channels Throughout Sum Channel Bandwidth, IEEE Trans on MT&T, Feb. 2003, Vol. 51, No. 2, pgs 371-373	
DT	CI	BARKER, An Octave Bandwidth Monopulse Processor, IEEE, 0-7803-4603-6/97, 3 pages,	
DT	CJ	RICARDI, A Diplexer Using Hybrid Junctions, IEEE Transactions on Microwave Theory and Techniques, Aug. 1966, Vol. MTT-14, No. 8, pgs 364-371	

Examiner Signature		Date Considered	11/15/04
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DT	CK	SEKI, 30-GHz Multibeam Antenna Using Bi-Layer Butler Matrix Circuits, IEICE Trans. Commun., Dec. 1996, Vol. E79-B, No. 12, pgs 1778-1783	
DT	CL	ISOTA, A Simple Design Method of the Planar Butler Matrix Using Thin Dielectric Substrate Metalized Both Side, IEICE Trans. Electron, Feb. 2003, Vol. E86-C, No. 2, pgs 162-167	
DT	CM	HAYASHI, Radial Open Stub and Its Application to a Simple Design of a Four-element Planar Butler Matrix, IEICE Trans. Elec., May 2002, Vol E85-C, No. 5, pgs 1164-1169	
DT	CN	UEHARA, A Planar Sector Antenna for Indoor High-Speed Wireless Communication Systems, IEICE Trans. Commun., Dec. 1996, Vol. E79-B, No. 12, pgs 1773 - 1777	
DT	CO	ANGELUCCI, Multiport Power Amplifiers for Mobile-Radio Systems Using Microstrip Butler Matrices, IEEE, 1994, 0-7803-2009-3/94, pgs 628-631	

**Examiner  
Signature**

Dean Jackson

Date \_\_\_\_\_

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